

Biographical Information

Lynn Scarlett, Assistant Secretary of Policy, Management, and Budget

Lynn Scarlett is Assistant Secretary of Policy, Management and Budget at the Department of the Interior. Since taking her post at Interior in July 2001, Ms. Scarlett coordinates budget planning within the Department and has helped the Department implement the President's Management Agenda and other key management initiatives. She serves as both the Chief Financial Officer and Chief Human Capital Officer of the Department. She also helps coordinate Department-wide environmental policy initiatives to implement Secretary Gale Norton's "4 C's" vision of conservation through cooperation, communication, and consultation. In June 2002, she became chairperson of the Wildland Fire Leadership Council, an interagency and intergovernmental forum for implementing the National Fire Plan and 10-Year Implementation Plan.

Prior to joining the Bush Administration in July 2001, she was President of the Los Angeles-based Reason Foundation, a nonprofit current affairs research and communications organization. In addition to her management role, her policy research focused on environmental, land use, and natural resources issues.

Ms. Scarlett is author of numerous publications on incentive-based environmental policies. She co-authored a report, *Race to the Top: State Environmental Innovations*, which examines state environmental programs that utilize incentives, private partnerships, and local leadership in addressing environmental problems.

Ms. Scarlett served on President George W. Bush's environmental policy task force during his presidential campaign. She was appointed by former Governor Pete Wilson to chair California's Inspection and Maintenance Review Committee, a position she held for 6 years. Ms. Scarlett served as an Expert Panelist on the U.S. Environmental Protection Agency's full-cost accounting and "pay-as-you-throw" projects. She served at the request of former EPA Administrator William Ruckelshaus on the Enterprise for the Environment Task Force, which examined new directions for U.S. environmental policy.

Ms. Scarlett received her B.A. and M.A. in political science from the University of California, Santa Barbara, where she also completed her Ph.D. coursework and exams in political science and political economy.

Lance Gunderson, Head, Department of Environmental Studies, Emory University

Lance Gunderson was born and raised in southern Florida, USA. He attended the University of Florida, receiving B.S. (1975) and MS (1977) degrees in Botany. After graduation, he worked as a researcher for the National Audubon Society in the wetlands of southern Florida. He then took a position as a botanist with the US National Park Service, to do resource mapping and assessment in the Big Cypress National Preserve. He became vegetation program manager in Everglades National Park, working on plant-hydrology interactions. In 1988 he returned to graduate school at the University of Florida and received a Ph.D. (1992) in Environmental Engineering

Sciences. He stayed on as a research scientist in the Department of Zoology until 1998. He has been chair of the Department of Environmental Studies at Emory University in Atlanta, Georgia, since January 1999. From 1997 to 2000, he served as the executive director of the Resilience Network, a program of the Beijer International Institute for Ecological Economics, Swedish Royal Academy of Sciences, Stockholm. He is currently Vice-Chair of the Resilience Alliance, and Co-Editor in Chief of Conservation Ecology. He sits on the science advisory board for the Grand Canyon Research and Monitoring Center.

His ongoing research interests are in two major categories: 1) how scientific understanding influences resource policy and management and 2) understanding how ecosystem processes and structures interact across space and time scales. He has been involved in the environmental assessment and management of large-scale ecosystems, including the Everglades, Florida Bay, the Upper Mississippi River Basin, and the Grand Canyon. His interests are in the human and institutional dimensions to resource ecology, and to that end, has co-edited the books "*Barriers and Bridges to the Renewal of Ecosystems and Institutions*," which compares case histories of managing large, complex ecosystems and "*Panarchy: Understanding Transformations in Systems of Humans and Nature*," which attempts to synthesize interdisciplinary concepts that underpin sustainable actions.

Select Recent Publications:

- Gunderson, L.H., and C.S. Holling. 2002. *Panarchy: Understanding Transformations in Systems of Humans and Nature*. Island Press, Washington, DC.
- Gunderson, L.H. and L. Pritchard, Jr. 2002. *Resilience and the Behavior of Large Scale Systems*. Island Press, Washington, DC.
- Carpenter, S.R., and L.H. Gunderson. 2001. Coping With Collapse: Ecological and Social Dynamics in Ecosystem Management. *Bioscience*.
- Pritchard L. C. Folke, and L. Gunderson. 2000. Valuation of Ecosystem Services in Institutional Context. *Ecosystems*
- Gunderson, L.H. 2000. Resilience in theory and practice. *Annual Review of Ecology and Systematics* 31:425-439.
- Gunderson, L.H. 1999. Resilience, Flexibility and Adaptive Management. *Conservation Ecology* 3(1): 7 [online]. <http://www.consecol.org/Journal/vol3/iss1/art7/>
- Gunderson, L.H., C.S. Holling, and S.S. Light. 1995. *Barriers and Bridges to Renewal of Ecosystems and Institutions*. Columbia University Press, New York, New York.

Jim Nichols, Senior Scientist, USGS Patuxent Wildlife Research Center

James D. Nichols began working on waterfowl harvest management problems in 1976. He worked closely with USFWS Office of Migratory Bird Management personnel on such problems before USFWS researchers were moved to USGS. For example, Nichols was a contributing writer to the 1988 Supplemental Environmental Impact Statement on migratory bird hunting. Despite conducting retrospective analyses on very large and complete waterfowl databases, it became clear to Nichols that some sort of experimental or adaptive approach would be needed in order to assess the influence of harvest regulations on waterfowl population dynamics in order to properly manage sport hunting. This view was expressed in several review papers that appeared throughout the 1980's and 1990's and that were designed to motivate interest in an adaptive approach to waterfowl

harvest management. Nichols was a member of the original Adaptive Harvest Management ad hoc Working Group led by Fred Johnson in the early 1990's. This group of state and federal biologists and managers then developed the formal adaptive harvest management program that was implemented by USFWS in 1995. Nichols has coauthored several publications dealing with harvest management, in general, and adaptive management, in particular (2 examples below).

Nichols, J.D., F.A. Johnson, and B.K. Williams. 1995. Managing North American waterfowl in the face of uncertainty. *Annual Review of Ecology and Systematics* 26:177-199.

Williams, B.K., J.D. Nichols, and M.J. Conroy. 2002. Analysis and management of animal populations. Academic Press, San Diego. 817pp.

Horst G. Greczmiel, CEQ, Associate Director for NEPA Oversight

Horst G. Greczmiel joined the Council on Environmental Quality (CEQ) in December 1999 as the Associate Director for National Environmental Policy Act (NEPA) Oversight. His work at CEQ includes being the Director of the National Environmental Policy Act Task Force which issued its report, *Modernizing NEPA Implementation*, September 2003, with numerous recommendations designed to make NEPA implementation more effective and timely. Prior to CEQ, he was with Coast Guard Headquarters, Office of Environmental Law, in Washington, DC, where he was responsible for policy development and litigation involving environmental planning compliance responsibilities. Earlier, Mr. Greczmiel practiced law in the Public Defender's Office (Camden, NJ), in a private firm, and in the U.S. Army. His service in the Army included tours with the Office of The Judge Advocate General's Environmental Law Division and as an environmental advisor to the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health.

Mr. Greczmiel received his B.A. from Lafayette College, Easton, PA; J.D. from Rutgers - Camden School of Law, Camden, NJ; and LL.M. in environmental law from George Washington University, Washington, DC. He resides in Fairfax, VA, with his wife, Maria C. Fernandez-Greczmiel and their son George.

Tim Salt, Bureau of Land Management

Tim Salt is the Western Regional Staff Assistant to the Assistant Director for Renewable Resources and Planning. Over the past year, one of his assignments has been to lead the effort to develop policies and procedures for integrating adaptive management into the Bureau planning and NEPA processes. Tim comes to this position with a background in management. He was the Mimbres Resource Area Manager in New Mexico and the California Desert District Manager. While assigned to the headquarters office he was the Rangeland Reform '94 Project Manager and served a term as a Congressional Fellow on Senator Harry Reid's personal staff. Tim is the recipient of the Department's Meritorious Service Award.

Fred Johnson, Fish and Wildlife Service, Migratory Bird Management

Fred A. Johnson received a B.S. in Wildlife Resources from West Virginia University in 1978 and a M.S. in Wildlife and Fisheries Sciences from Texas A&M University in 1981. Since 1989, Fred has worked for the U.S. Fish & Wildlife Service in the Division of Migratory Bird Management. Fred's principal responsibility is the development and implementation of the adaptive-management program for the regulation of waterfowl harvests. Fred is currently stationed in Gainesville, FL, where he is part of a multi-agency effort to develop adaptive-management concepts and tools for application to a variety of wildlife-conservation problems.

Michael C. Runge, Ph.D., USGS Patuxent Wildlife Research Center

Michael C. Runge is an ecologist with the U.S. Geological Survey, Patuxent Wildlife Research Center, where he has worked since 1999. The primary focus of his research is the development of theory and applications for adaptive resource management. In his doctoral dissertation (Runge 1999), he developed a framework for adaptive management of a beaver trapping program. With USGS, he has focused on three areas of research, all of which involve collaboration with USFWS on some level.

- (1) *Development and support of Adaptive Harvest Management (AHM) for waterfowl.* With Fred Johnson (USFWS-DMB), Dr. Runge has extended the theoretical basis for AHM (Runge and Johnson 2002) and led a substantial revision of the models used to advise policymakers (Runge et al. 2002).
- (2) *Large-scale experiments and adaptive habitat management on National Wildlife Refuges.* Dr. Runge has worked closely with USFWS Region 5 Refuges to develop and implement two large-scale management experiments, one to study the effects of impoundment drawdowns on migrating shorebirds, and one to study the effects of grassland management on grassland breeding birds. These studies are precursors to establishing full-fledged adaptive strategies for these management programs. In addition, he has worked with Refuge personnel and NCTC in the development of a "Habitat Management Planning" course, with emphasis on adaptive management.
- (3) *Adaptive management in conservation biology.* Dr. Runge has sought to develop novel applications of adaptive management for species at risk. He has studied the potential for using formal adaptive optimization methods to guide decisions about reintroductions (Runge *in preparation*). He is working with the Manatee Warm-water Task Force (an arm of the Manatee Recovery & Implementation Team) to use adaptive resource management as the conceptual framework for future management of warm-water sites used by manatees.

Dr. Runge has helped teach several short-courses on adaptive management, including workshops at The Wildlife Society conference and the International Wildlife Management Congress.

Runge MC. 1999. Design and analysis of a model for adaptive harvest management of beaver (*Castor canadensis*) [dissertation]. Ithaca (NY): Cornell University. 461 p.

Runge MC. [In preparation]. Adaptive management of reintroductions to reestablish an animal population. Intended outlet: Conservation Biology.

Runge MC, Johnson FA. 2002. The importance of functional form in optimal control solutions of problems in population dynamics. Ecology 83:1357-1371.

Runge MC, Johnson FA, Dubovsky JA, Kendall WL, Lawrence J, Gammonley J. 2002. A revised protocol for the adaptive harvest management of mid-continent mallards. (Final Report, June 17, 2002). U.S. Fish and Wildlife Service, Division of Migratory Bird Management.

Randy Peterson, Bureau of Reclamation

Mr. Peterson graduated from the University of Utah in 1978 with a bachelors degree in Civil Engineering. He has worked in the Department of the Interior with the Bureau of Reclamation for the past 25 years, working extensively on hydrologic estimations and risk-based decision making. For 15 years he led Reclamation's operation of the mainstem Upper Colorado River Basin reservoirs, including Glen Canyon Dam. He was instrumental in modifying the operation of Glen Canyon Dam following the flood years of the 1980's to reduce the frequency of uncontrolled flooding, and in the mid-1990's led the negotiation of an agreement between the Department of the Interior and the Colorado Basin States allowing the 1996 test of the Beach/Habitat Building Flow, the widely publicized spike flow from Glen Canyon Dam. He has co-chaired the Colorado River Management Work Group, a public involvement group which is involved in the operation of the entire Colorado River reservoir system, and served as program manager of the Glen Canyon Dam Adaptive Management Work Group, a science-based collaborative effort which seeks to protect the resources of the Grand Canyon while meeting the project purposes of the dam. He is currently the UC regional office environmental resources division manager.

Dennis Kubly, Bureau of Reclamation

Dennis Kubly has worked for the Upper Colorado Region of the Bureau of Reclamation since 1999. Prior to joining Reclamation, Dennis worked as an independent consultant for five years and then for 15 years at the Arizona Game and Fish Department. His past work on the Colorado River and its tributaries in Grand Canyon includes water quality research while a graduate student at Arizona State University and fisheries investigations while working on the Glen Canyon Environmental Studies and the Glen Canyon Dam Environmental Impact Statement. He is presently Chief of the Adaptive Management Group in the Environmental Resources Division and serves as Reclamation's program manager in the Glen Canyon Dam Adaptive Management Program.

Carol Kruse, Bureau of Land Management, Planning and Environmental Coordinator

Carol Kruse is a Planning and Environmental Coordinator for the Bureau of Land Management in Pinedale, Wyoming. In addition to being project lead on two gas field EISs, she is the field office coordinator for adaptive management, NEPA, FACA, and FOIA, and BLM's liaison to the upcoming Pinedale Anticline (Gas Field) Working Group, a FACA-chartered adaptive management advisory committee. She is a professional consensus facilitator.

As a NEPA analyst and intergovernmental liaison for the State of Wyoming Governor's Office between 1997 and 2003, Carol coordinated multiple state agencies and local governments during state and local formal cooperating agency participation on BLM and USDA-Forest Service

interdisciplinary teams as they developed project- and plan-level NEPA documents. As part of those duties, she was integrally involved in the design, development, and implementation of the original Pinedale Anticline Working Group and other agencies' adaptive management efforts.

Carol holds a B.A. in Zoology from San Diego State College (now University) and an M.S. in Recreation and Park Administration from the University of Wyoming. Her thesis focused on stakeholder group decision making about natural resource issues, and identified and developed measurement instruments for group compositional, dynamic, process and cohesion factors that promote or inhibit legally and politically successful group decisions. She has extensive training in human resource development, with emphasis on facilitating organizational change and understanding conflict resolution preferences and learning styles vis-a-vis-personality types.

Gary Davis, National Park Service, Chief Scientist with the Channel Islands National Park

Gary E. Davis is the National Park Service's Visiting Chief Scientist for Ocean Programs. He is a marine ecologist and certified fisheries scientist from San Diego, California. He began his career in 1964 as a park ranger, and served as an Aquanaut on the 1969 Tektite I Project in Virgin Islands National Park. As a research scientist in the 1970s, he explored how Dry Tortugas, Everglades, and Biscayne National Parks contributed to sustainable fisheries and to the integrity of ocean ecosystems in the Florida Keys. In the 1980s, he founded a prototype environmental 'vital signs' monitoring program at Channel Islands National Park, California. That program became a model for the rest of the National Park System, and led to the recent establishment of a pioneering network of marine reserves in the park. He has authored or edited more than 140 scientific articles, including the 1996 book *Science and Ecosystem Management in the National Parks*. He resides in Thousand Oaks, California, with his wife Dorothy, and maintains offices in Washington, DC, and in Ventura and Monterey, CA.

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Chip Groat, Director, US Geological Survey

Chip Groat is the Director of the U.S. Geological Survey. He is a distinguished professional in the earth science community with over 25 years of direct involvement in geological studies, energy and minerals resource assessment, ground-water occurrence and protection, geomorphic processes and landform evolution in desert areas, and coastal studies. Dr. Groat received a Bachelor of Arts degree in Geology (1962) from the University of Rochester, a Master of Science in Geology (1967) from the University of Massachusetts, and a Ph.D. in Geology (1970) from the University of Texas

at Austin. Prior to that he served as Associate Vice President for Research and Sponsored Projects of the University of Texas at El Paso and as Director of the Center for Environmental Resource Management. Prior to joining the University of Texas, Dr. Groat served as Executive Director (1992-95) at the Center for Coastal, Energy, and Environmental Resources, at Louisiana State University. He was Executive Director (1990-92) for the American Geological Institute. From 1983-88, he served as assistant to the Secretary of the Louisiana Department of Natural Resources, where he administered the Coastal Zone Management Program, and the Coastal Protection Program.